

METHOD AND APPARATUS FOR LINKING CONVERTED APPLET FILES
WITHOUT RELOCATION ANNOTATIONS

ABSTRACT

A smart card which includes a non-volatile read/write memory, a processor connected
5 to the memory, and an installer module configured to cause the processor to receive
computer code having method bodies into the memory, and further configured to
cause the processor to perform a method for determining the instruction boundaries of
the method bodies and resolving unresolved references within the method bodies. The
method includes steps for examining each instruction for a forward jump instruction
10 and a valid ending instruction, maintaining a farthest logical return pointer
corresponding to the instruction for which the farthest forward jump instruction or the
farthest valid ending instruction is detected, resolving unresolved references within a
method body starting with the first instruction and ending with the instruction
corresponding to the farthest logical return pointer, and terminating the examination
15 of each instruction within a method body when the instruction under examination is
beyond the instruction corresponding to the farthest logical return pointer.